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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,298	10/16/2003	John T. Kilcoyne	1065-012US04	7921

28863 7590 12/28/2006  
SHUMAKER & SIEFFERT, P. A.  
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SUITE 105  
ST. PAUL, MN 55125

EXAMINER
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NASSER, ROBERT L

ART UNIT	PAPER NUMBER
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3735

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/28/2006	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/687,298

Applicant(s)

KILCOYNE ET AL.

Examiner

Robert L. Nasser

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 2/13/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 33-49, 55 and 56 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 33-49, 55 and 56 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/11/04 and 8/1/06</u> | 6) <input type="checkbox"/> Other: _____  |

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The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The specification does not support the second interval being 60 ms, as the specification states that the correction 338, message formation 340, and transmission 342 states together take approximately 60 ms. Correction is required.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 33-34, 37-40, and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lebel et al 6585644 in view of Smith 5108889. Lebel shows a device with a casing 6 adapted to be implanted and secured within a patient's body in an area where the environment has a parameter, pH, indicative of reflux, a pH sensor in the casing (see column 9, lines 40 and 41), transmitter 76 in the casing, adapted to send a glucose signal to an external receiver, a power source 74 in the casing, and a processor in the casing that supplies power to the transmitter only during certain times to minimize power consumption (see discussion of listening periods throughout). It does not supply power periodically to the sensor. However, Smith teaches that in order to further minimize power consumption, the sensor may only be energized for small periods of time (see column 50, lines 38-45). Hence, it would have been obvious to modify Lebel to periodically enable the sensor, to further conserve power. Claim 37 is rejected in that the transmitter is rf and transmits a digital signal. Claims 38 and 40 are rejected in that

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the exact time each of the transmitter and sensor are energized would have been a mere matter of design choice for one skilled in the art. Claim 39 is rejected in that the combination would have a sensing period and a transmitting period, where only the sensor or transmitter are enabled. Claim 55 is rejected in that the casing can be immobilized in the esophagus.

Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lebel et al in view of Smith as applied to claims 33, 34, 37-40, and 55 above, and further in view of Cozette 5063081. Cozette teaches that a ISFET/amplifier is a known pH sensor. Hence, it would have been obvious to modify the above combination to use such a sensing system, as it is merely the substitution of one known sensor for another.

Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lebel et al in view of Smith as applied to claims 33, 34, 37-40, and 55 above, and further in view of Miller 4748562. Miller teaches that a antimony electrode/amplifier is a known pH sensor. Hence, it would have been obvious to modify the above combination to use such a sensing system, as it is merely the substitution of one known sensor for another.

Claims 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lebel et al in view of Smith as applied to claims 33, 34, 37-40, and 55 above, and further in view of Schulman et al 5497772. Schulman teaches storing calibration data with a sensor to ensure proper calibration of the device. Hence, it would have been obvious to modify the combination to use such a memory, to ensure accurate measurements.

Claims 43, 45-49 are rejected under Petty 4503859 in view of Lebel et al and Smith. Petty shows an implantable pH sensor for measuring pH having a telemetry link to a data receiver (see column 4, line 5). Lebel and Smith teach respectively, that to conserve power, the transmitter and sensor should only be activated for a portion of the cycle. Hence, it would have been obvious to modify Petty to use such a power scheme, to conserve energy. Claims 45, 48, and 49 are rejected in that the exact time each of the transmitter and sensor are energized would have been a mere matter of design choice for one skilled in the art. Claim 47 is rejected in that the examiner takes official notice that rf is a well known telemetry medium.

Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Petty in view of Lebel et al and Smith as applied to claims 43 and 45-49 above, and further in view of Cozette 5063081. Cozette teaches that a ISFET/amplifier is a known pH sensor. Hence, it would have been obvious to modify the above combination to use such a sensing system, as it is merely the substitution of one known sensor for another.

Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over Petty in view of Lebel et al and as applied to claims 43 and 45-49 above, and further in view of Miller 4748562. Miller teaches that a antimony electrode/amplifier is a known pH sensor. Hence, it would have been obvious to modify the above combination to use such a sensing system, as it is merely the substitution of one known sensor for another.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

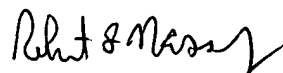
Gross et al 5800420 shows a very similar system for measuring glucose, where the sensor and transmitter are periodically energized. It does not measure pH or a parameter indicative of reflux.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert L. Nasser whose telephone number is 571 272-4731. The examiner can normally be reached on m-f 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor II can be reached on 571 272-4730. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Robert L. Nasser  
Primary Examiner  
Art Unit 3735



ROBERT L. NASSER  
PRIMARY EXAMINER

RLN